Preface

Introduction

The focus in this special issue is on values in organic agriculture. Being a protest movement against developments in industrialized conventional agriculture the organic movement has been value-based from the very beginning. However, organic agriculture is undergoing rapid changes. In some agricultural sectors it is becoming similar to conventional agriculture: growing intensification, specialization and transport over long distances. This 'conventionalization' of organic agriculture is worrying many people in the organic movement. They believe that it is incompatible with the organic values and may have a negative impact on the public image of organic farming. Organic agriculture is supported by governments and NGOs because of the public goods it delivers, such as a better environment, animal welfare, and rural development. If these goods are no longer delivered it may have repercussions for the support of the entire organic movement.

It is not surprising therefore that there is an increasing interest in organic value issues, especially since about 2000. The Louis Bolk Institute (LBI) has a long tradition in playing a prominent role, both at the national and international level, in the research on organic concepts and values. This research got a strong impulse in 1999 when the bioethicist Henk Verhoog joined the institute. One of the reasons for publishing this special issue is his retirement. Another reason is that the guest editors and editors believe that the discussion about the organic values is of wider interest than for the organic community alone.

Conventional agriculture too is changing into a more sustainable direction. Ethical values are always future-directed, inspiring people towards a certain course of action. The discussion in the organic movement may therefore be of interest to all who are concerned about the future of agriculture in general.

As an illustration of the rising general interest in the ethical issues involved in agriculture and food production we mention the initiation of the European Society for Agricultural and Food Ethics (EURSAFE) in 1999. Currently, it is the most important international platform for discussions about these issues.

Organic agriculture and values

The study of organic values can be approached in various ways. First of all one can study the pioneers of the organic movement and try to find out their ambitions. One soon discovers that not all the pioneers had the same ambitions. In organic agriculture several 'schools of thought' have developed, such as the biodynamic and the ecological ones. Some people were concerned about the decreasing fertility of the soil and the increase of plant and animal diseases in the beginning of the 20th century. Some developed methods of compost making as an alternative to inorganic fertilizers.

Others were mainly concerned about the effect of the production of food on human health or the environment. Niggli (2000) believes that the pioneers analysed and interpreted the main problems of the then main-stream agriculture in different ways, but by doing so they were led to more or less the same ethical values (production processes in closed cycles, self-regulation, the use of natural, non-synthetic compounds and renewable resources, concern for the wider social, ethical and ecological impacts of farming).

A second approach to the study of organic values is sociological (empirical) research about the values of individual stakeholders (producers, retailers, consumers). Here the word 'value' can be taken in a very broad sense as motive for being active in the organic chain or buying organic products. Farmers who convert to organic out of financial motives (an interesting market niche) are taken as seriously as farmers who convert out of concern for the environment or for other reasons. One can also do empirical research in order to find out what stakeholders call the typically organic values (Padel, 2005). In ethics one would call this kind of research part of 'descriptive ethics'.

Finally, we have research about the organic values that is more philosophical. This is also called 'normative ethics'. It always involves a kind of normative reconstruction of the findings of empirical research, or statements about values in the literature. The word 'value' is used in a normative sense here, as an ideal, a source of inspiration, or a normative principle. When, for instance, the rejection of genetic engineering in organic agriculture is based on the organic values then the values function as normative principles. As an example of a normative approach to values we mention a publication by the Danish Research Centre of Organic Agriculture (DARCOF; Anon., 2000) in which three main organic ethical principles are distinguished: the cyclical principle, the precautionary principle, and the nearness principle.

Role of the Louis Bolk Institute

The Louis Bolk Institute (LBI) is one of the largest independent research institutes in Europe specialized in organic agriculture. In the beginning the emphasis was on biodynamic agriculture. Biodynamic agriculture later became part of organic or biological agriculture, together with the ecologically driven organic impulse. At the moment most of the research done is on organic agriculture in the broad sense, including its impact on human nutrition and health. Since its foundation in 1976 the LBI has been interested in the more philosophical aspects of agriculture and human health.

In 1999, LBI started a research project on the value of naturalness in organic agriculture, financed by the Netherlands Organisation for Scientific Research (NWO). This has been a combination of the above-mentioned empirical approach and the normative approach. At that time the animal department of the institute was already involved in a larger European organic research project called NAHWOA (Network for Animal Health and Welfare in Organic Agriculture). The final results of this project have been published in book form (Vaarst *et al.*, 2004). Here the institute's focus has been on the concepts of animal welfare and animal integrity. The value of animal integrity is

of special interest since it also played an important role in the Dutch policy on genetic manipulation of animals. In contrast with concepts such as animal health and animal welfare it does not refer to the consequences (the risks) of genetic engineering, but to the application of the technology itself. Violation of the integrity of an animal was a new moral issue in animal bioethics, instigated by the development of the technique of genetic engineering. Integrity refers to the wholeness and characteristic 'nature' of a plant or animal species.

Having developed the concept of animal integrity it was a logical step to ask whether the concept of integrity could also be used with respect to plants, especially in connection with modern plant breeding techniques. Many papers have been published about this subject. While working on these issues the picture of the reasons used by the organic movement to oppose genetic engineering became clearer.

Because of the work done on these issues the LBI was asked to participate in two other international projects. The first is a project initiated in 2004 by the International Federation of Organic Agriculture Movements (IFOAM) to reformulate the ethical principles of organic agriculture. This is clearly a kind of normative ethics, but it included a process of consultation as well. A task force did the actual reformulation and for the consultation a consultative group was formed in which Henk Verhoog represented the LBI. The process is described in more detail in one of the papers of this issue. The process resulted in four ethical principles. Their normative character clearly comes out in the statement that these principles form the 'roots from which organic agriculture should grow and develop'.

The contribution to the IFOAM process of reformulating the organic ethical principles coincided with the participation of four LBI scientists (H. Verhoog, J. De Wit, J. Langhout and E.T. Lammerts Van Bueren) in a European Research project called Organic Revision. The main aims of this project were to describe the organic value basis and its relation to the European Regulation of Organic Agriculture. The final report of this project is due to appear in the first quarter of 2007 (Melby Jesperson *et al.*, 2007).

Contents

In the first two papers of this issue some basic, ethical principles will be discussed that underly the practice of organic agriculture: the concept of naturalness as developed at the LBI (Verhoog *et al.*) and the principles of organic agriculture as formulated by the world umbrella organization for organic agriculture, IFOAM (Luttikholt).

In the following four papers these concepts will be elaborated by defining how farm-ers work with animals and plants while respecting their characteristic nature. The paper by Verhoog discusses how the scientific perception of animals drives us away from our common sense perception, and the paper by Wagenaar & Langhout elaborates the consequences of striving for a dairy husbandry that aims at more or less 'natural behaviour'. The next two papers analyse the refusal of the organic sector to use genetically modified organisms (GMOs) in their production system. The paper by Verhoog is a critical review of the arguments originally applied in the organic sector

against GMOs and an attempt to reformulate them into more valid arguments. The paper by Lammerts Van Bueren *et al.* on values in plant production, focuses on some new GMO techniques that are being developed in plant breeding, and challenges the argumentation that they can be exempted from current GMO regulation by pointing out the process-focused attitude of organic agriculture versus the product-orientation of biotechnologists.

The values of organic agriculture are not only applied to animals and plants but also elaborated for higher integration levels, such as the farm level in the paper by Bloksma & Struik and the landscape level in the paper by Pedroli *et al.*

In the paper by De Wit & Verhoog a sensitive issue is touched: the paper reviews the current tendency in organic agriculture to rapidly expand and to become increasingly main-stream, risking to loose touch with its fundamental values.

In the last paper Baars & Baars reflect on the methodology of science underlying the concept of integrity of living organisms as part of the concept of naturalness. The result is a first step towards a philosophical underpinning of the holistic concept of integrity of organisms within organic agriculture.

Closing remarks

Most authors in this special issue are scientists directly or indirectly related to the LBI. The fact that Henk Verhoog has (co-)authored many of the papers in this issue is testimony to his impact as bioethicist. The scientists of the LBI are very grateful to him for his inspiration and drive to make the values of organic agriculture more explicit. It has become an essential and integral part of the research of the LBI in its contribution to develop organic agriculture, nutrition and human health care.

We are sure that this special issue will pay tribute to that fact and thereby to the role Henk Verhoog has played in realizing this status of the LBI.

Finally, we hope that this issue will prove to be food for thought on the ethical values in agriculture for a wide audience, both within and outside the organic movement.

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